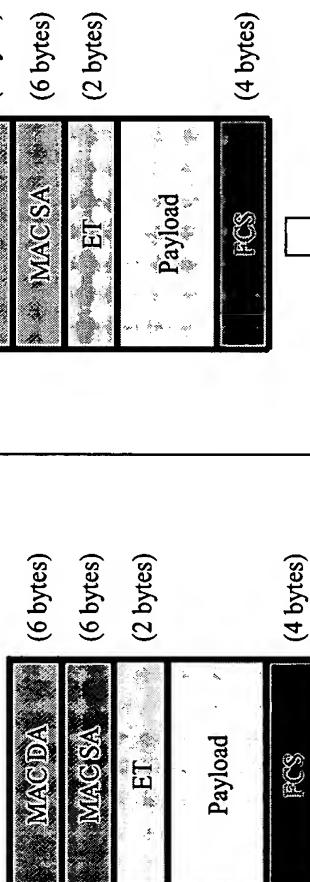


# Option #1c: Example

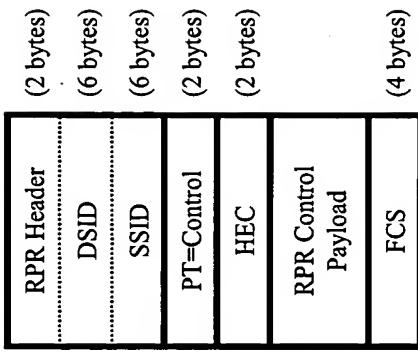
Locally Originated and Terminated Packet Flow

Packet Flow Involving Bridges

## Router/Host/Server Client Data Frame



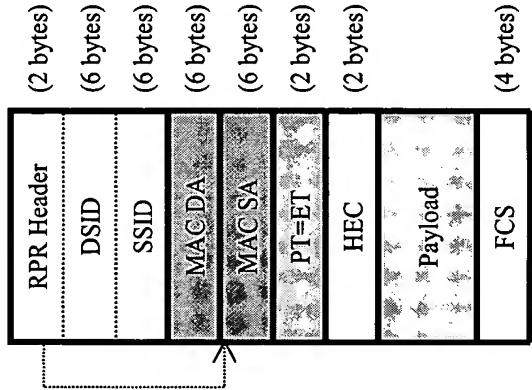
## Bridge Client Data Frame



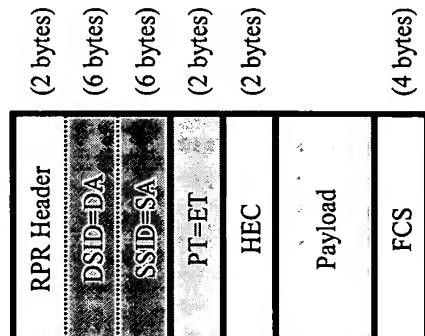
## RPR Control Packet

RPR Control Payload (4 bytes)

## Resulting RPR Frame

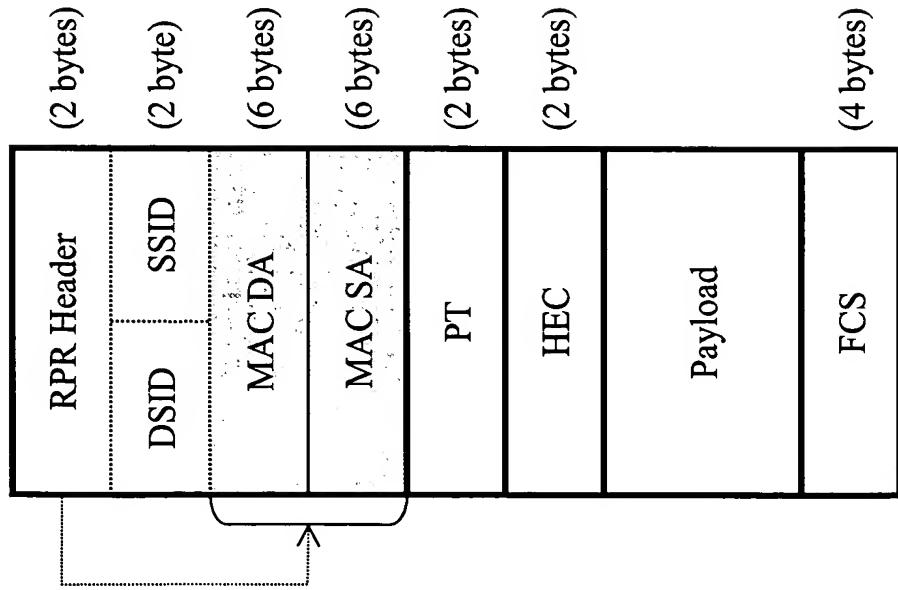


## Resulting RPR Frame



- Values of DSID/SSID
  - May, but need not, be derived from MAC DA/SA (e.g., using SID DB)
  - Must be a member of the Ring Topology Image

# Frame Structure with Station Identifiers: Option #1d



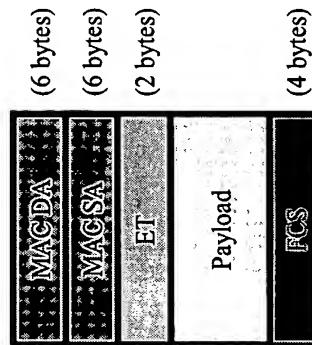
- Bit in RPR Header indicates presence of
- Remote MAC addresses in frame format
- Frame syntax changed when Remote MACs are present
- MAC reception rules changed to accommodate DSSID and SSID (labels)

# Option #1d: Example

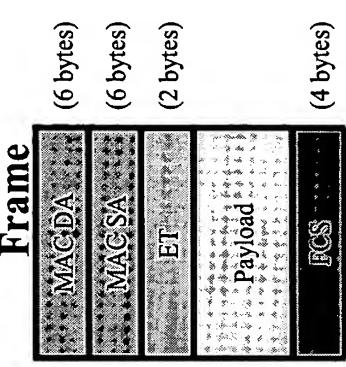
Locally Originated and Terminated Packet Flow

Packet Flow Involving Bridges

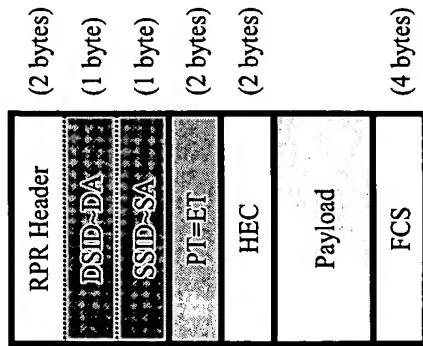
Router/Host/Server Client Data Frame



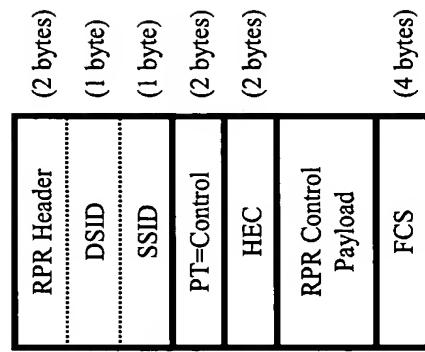
Bridge Client Data Frame



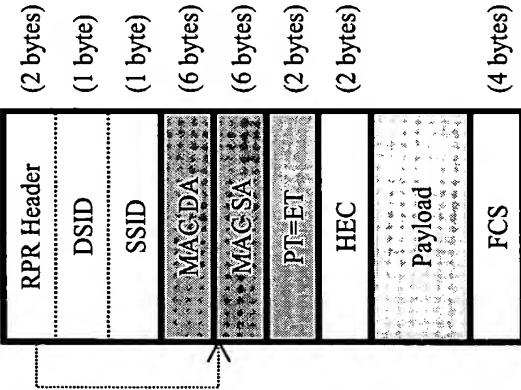
Resulting RPR Frame



RPR Control Packet



Resulting RPR Frame

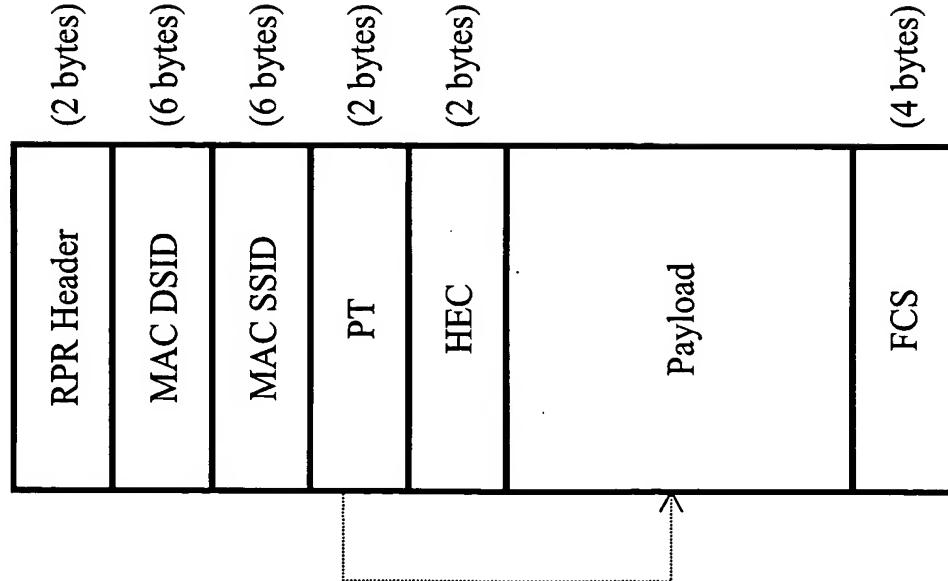


## Values of DSID/SSID

- May, but need not, be derived from MAC DA/SA (e.g., using SID DB)
- Must be a member of the Ring Topology Image

# Frame Structure with Station

## Identifiers: Option #2a

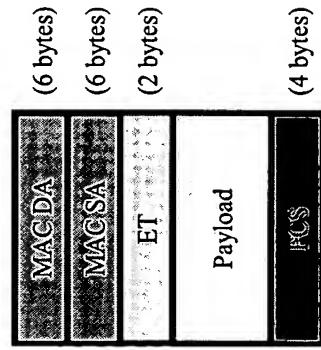


- Frame syntax unchanged
- Frame semantics changed ?
  - MAC SA and DA (prior to HEC) *always* in the Ring local address domain
    - All fields prior to HEC are specific to managing packet flow on the RPR LAN
  - Packets with Remote MAC address are carried in the RPR frame Payload
    - PT field indicates RPR addressing hierarchy
  - Local traffic (with local MAC addressing) use the Payload to carry Client data.

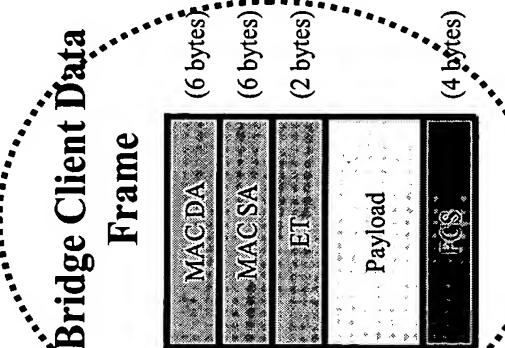
# Option #2a: Example

Locally Originated and Terminated Packet Flow

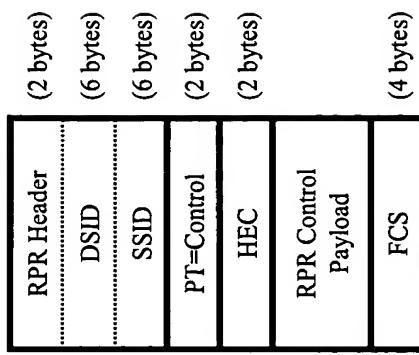
Router/Host/Server Client Data Frame



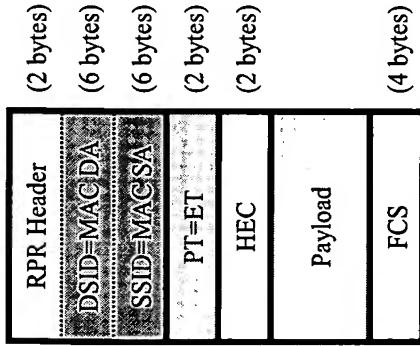
Packet Flow Involving Bridges



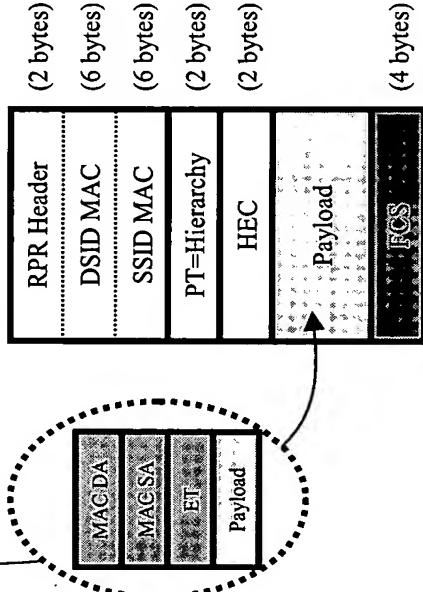
RPR Control Packet



Resulting RPR Frame



Resulting RPR Frame



Values of DSID/SSID

- May, but need not, be derived from MAC DA/SA (e.g., using SID DB)
- Must be a member of the Ring Topology Image

# Open Issues

- Certain members of BAH believe that this option results in a different format for local addresses versus remote addresses



# Option Comparison



| Category  | Option #2a | Option #1a | Option #1b | Option #1c | Option #1d |
|---|------------|------------|------------|------------|------------|
| No change to frame format   |            |            |            |            |            |
| No impact to existing MAC reception rules   |            |            |            |            |            |
| Avoids introduction of distribution and uniqueness algorithm need to manage Station label identifiers.  |            |            |            |            |            |
| Can support Bridging with Flooding proposals.   |            |            |            |            |            |
| Can support Bridging with Spatial Re-Use proposals.   |            |            |            |            |            |
| Can support multiple flooding techniques (e.g., source stripping, TTL scoping, etc.)  |            |            |            |            |            |
| No impact to currently defined Service interface between 802.17 MAC and MAC Clients.  |            |            |            |            |            |
| Maximum Frame Tax (Ring Configuration dependent – Ring has at least 1 Bridge operating with Spatial Reuse)  |            |            |            |            |            |
| Minimum Frame Tax (Ring Configuration dependent – Ring does not have any Bridges resident, or has at least 1 Bridge but does not operate a Broadcast media) |            |            |            |            |            |



# Option Comparison



| Category  | Option #2a | Option #1a | Option #1b | Label SID | MAC SID |
|---|------------|------------|------------|-----------|---------|
| Fixed pre-HEC fields                                |            |            |            |           |         |
| Bridge support for source stripping                 |            |            |            |           |         |
| Same frame format for Bridge and non-Bridge devices |            |            |            |           |         |
| Is Format in the domain of 802.17?                  |            |            |            |           |         |